

WHAT IS CLAIMED IS:

Sub A1 > 1. A waveguide for a microwave device, comprising:  
a frame housing a high-frequency circuit therein; and  
a lid attached to a sidewall of the frame,  
wherein at least one of the frame and the lid has a  
waveguide groove formed therein and extending along the  
mating surface between the frame and the lid.

2. The waveguide according to Claim 1, wherein the  
frame comprises a main casing housing a first circuit board  
and a sub-casing housing a second circuit board, and the  
second circuit board has a probe provided thereon, the probe  
protruding into the waveguide groove.

3. The waveguide according to Claim 1, wherein the lid  
has a projected flange formed thereon so as to serve as a  
fixing surface for a mating waveguide, and the flange has a  
waveguide through-hole therein so that the waveguide groove  
is in continuous connection with the waveguide through-hole  
via an inclined plane formed at an end of the waveguide  
groove.

Sub A2 > 4. The waveguide according to Claim 2, wherein the  
sub-casing is arranged inside the four sidewalls of the main  
casing and the main casing has a through-hole, through which  
the probe passes, formed in the sidewall to which the lid is

attached.

5. The waveguide according to Claim 2, wherein the main casing has a cut-out formed in the sidewall to which the lid is attached and the sub-casing arranged inside the main casing has a sidewall which is exposed at the cut-out.

6. The waveguide according to Claim 5, wherein both the main casing and the sub-casing have waveguide grooves formed in the respective sidewalls, and the lid has a flat surface to cover the waveguide grooves.

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